1		DIRECT TESTIMONY
2		OF
3		JOHN R. HENDRIX
4		ON BEHALF OF
5		SOUTH CAROLINA ELECTRIC & GAS COMPANY
6		DOCKET NO. 2004-178-E
7		
8	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
9	A.	John R. Hendrix, 1426 Main Street, Columbia, South Carolina.
10	Q.	BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
11	A.	I am Manager of Electric Pricing and Rate Administration at SCANA
12		Services, Inc.
13	Q.	DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
14		BUSINESS EXPERIENCE.
15	A.	I am a graduate of the University of South Carolina where I received
16		a Bachelor of Science Degree in Business Administration with a
17		major in marketing. Since joining South Carolina Electric & Gas
18		Company in August 1983, I have held various positions within the
19		Rate Department. In December 2002 I assumed my present position
20		I have participated in cost of service studies, rate development and

1		design, and rate evaluation programs for both the electric and gas
2		operations. I am a member of the Southeastern Electric Exchange
3		Rate Section.
4	Q.	WILL YOU BRIEFLY SUMMARIZE YOUR DUTIES WITH SCANA
5		SERVICES, INC.?
6	A.	I am responsible for the design and administration of the Company's
7		electric rates and tariffs including the electric fuel adjustment. In
8		addition, I am responsible for the Company's electric allocation
9		studies.
10	Q.	HAVE YOU PRESENTED TESTIMONY TO THIS COMMISSION
11		BEFORE?
12	A.	I have testified five times in SCE&G Fuel Clause Proceedings and
13		testified in SCE&G's most recent retail electric rate case.
14	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
15		PROCEEDING?
16	A.	The purpose of my testimony is to present the basis for the specific
17		rates and terms and conditions that the Company is proposing in this
18		proceeding. My testimony has three principal parts:
19		Cost of Service I present the Company's fully allocated
20		cost of service study. This study allocates responsibility for the

revenues required to operate the electric system among the various customer classes. It is based on engineering, operational and financial data related to the March 31, 2004, test year in this case.

Rate Design -- I present the rate design the Company is proposing in this proceeding. The rate design takes the revenue requirement produced by the cost of service study and creates specific rates. These rates are such that if they had been applied during the test period, they would have produced the Company's requested revenue requirement. These rates will give the Company the opportunity to earn the level of revenue required to cover its costs including cost of capital in the future.

<u>Tariffs, Terms and Conditions</u> -- In addition, I will also present the various individual changes, apart from the rate adjustments that the Company is proposing in its tariffs and Terms and Conditions of Services.

Q. WHAT IS A COST OF SERVICE STUDY?

A. A cost of service study is a study that determines the Company's costs of serving various classes of customers (i.e., residential, small general service, medium general service, large general service, and lighting). Different classes of customers place different requirements

on the electric system. Those different requirements are based on size, different usage patterns, different service voltages, different type of metering, different costs of reading meters, differences in the complexity of bills, etc.

A key principle in regulation of utility rates is that the rates for individual classes of customers should reasonably reflect the cost of serving customers in that class. Accordingly, the principle underlying the allocations of plant investment and expenses in a cost of service study is cost causation. The allocation methodologies should reflect the basis of what caused the cost to be incurred.

The cost of service study used in preparing the rates in this proceeding uses principles and methodologies that have been accepted by this Commission as appropriate for setting rates for the Company for at least the last 25 years. This study is based on standard rate making methodologies recognized throughout the industry.

Q. WHY DO YOU REFER TO YOUR STUDY AS A FULLY ALLOCATED COST OF SERVICE STUDY?

A. To be a proper basis for setting rates in a general rate proceeding, the cost of service study must allocate all the costs that comprise the utility's revenue requirement among the various customer classes.

Were any costs to be left out, those costs would not be recovered in rates, and the rates would not allow the utility a reasonable opportunity to recover its costs including the cost of capital allowed by the Commission.

Q. WHAT IS THE SOURCE OF THE COST COMPONENTS THAT ARE REFLECTED IN YOUR COST OF SERVICE STUDY?

A. The cost of service study and rate design are based on the cost components set forth in the Application and the testimony of the Company's other witnesses. These components are comprised of revenue and expenses and rate base items and are based on test year data including the proposed pro forma adjustments discussed in Mrs. Walker's testimony, and the cost of capital testimony by the Company's other witnesses.

Q. WOULD CHANGES IN RATE BASE AND RETURN COMPONENTS AND OTHER DATA INVALIDATE YOUR STUDY?

A. Not at all. The cost of service study provides an analytical and factual basis for allocating the Company's costs based on the engineering and operating characteristics of the electric system, the attributes of the various customer classes, and the demands placed

on the system by customers. Those characteristics and demands are not dependent on the overall amount of costs to be allocated in establishing rates. However, because specific elements of cost are allocated differently in the study, care is needed to adjust the results of the study if particular elements of cost are changed.

THE COST OF SERVICE STUDY

Q. WHAT ARE THE STEPS IN PREPARING A COST OF SERVICE STUDY?

A. There are three principal steps in preparing a cost of service study:

First, we functionalize the rate base and return components that comprise the revenue requirement.

Second, we classify return and rate base components according to the causation of those costs, either demand, energy, or customer related.

Third, after the above steps are completed, the cost components related to each function are allocated to the appropriate class of customers reflected in the manner in which the costs are incurred.

Q. PLEASE EXPLAIN HOW YOU FUNCTIONALIZE COSTS.

A. The Company records it costs using the Uniform System of Accounts of the Federal Energy Regulatory Commission. These accounts functionalize the Company's costs among the key functions of an integrated electric utility, the primary categories of which are production (generation), transmission and distribution.

Q. PLEASE EXPLAIN THE CLASSIFICATION OF COSTS.

A. In the next step of the process, the classification of costs, we place costs into groups according to cost-causing characteristics related to those costs. These cost-causing characteristics are defined as demand related characteristics, energy related characteristics, and customer related characteristics.

Q. PLEASE DEFINE DEMAND RELATED COSTS.

A. Demand costs are classified as costs which were incurred in proportion to the kilowatts of demand imposed on the various segments of the system by our customers. Costs which are demand related costs include the major portion of the Company's investment and related expenses in its production and transmission facilities and a significant portion of the investment and related expenses of its distribution system. The investments and expenses that are allocated using demand allocators are those that are incurred to

ensure that the Company can meet the demand customers place on the system for electricity in a reliable and cost effective manner.

Accordingly, customers cause the Company to incur these investments and expenses based on their contribution to demand on the system. By the same token, the costs allocated using demand allocators tend to be costs that remain constant over the short run and do not change based on the amount of power being used on the system.

Q. PLEASE DEFINE ENERGY RELATED COSTS.

A. Energy related costs are defined as those costs which vary with the number of KWH consumed on the system. These costs are also classified as variable costs. Customers cause these costs to be incurred by their consumption of energy on the system. For that reason, allocators based on KWH sales are used for these costs.

Q. PLEASE DEFINE CUSTOMER RELATED COSTS.

A. Customer related costs are those costs which are incurred primarily as a function of the number of customers served. These costs include items of investment and related expenses in the functional category of meter investment and expenses, customer accounting and sales expense, investment and expenses related to secondary

lines and services, and a portion of investment and expenses related to transformers. Customer costs do not vary significantly with the customers' volume of usage, individually or as a customer class.

However, these costs do vary with the number of customers in a class and with the size of the customers in the class (i.e., the voltages at which they take power, the maximum size of their meters, etc.).

Q. PLEASE EXPLAIN THE ALLOCATION OF COSTS.

A. The first step in allocating costs is the development of specific allocation factors to allocate the cost components to the various customer classes. In the development of the allocation factors, a principle of "equivalent level of service" is followed to ensure that the customer classes are allocated cost components for only those levels of the system involved in service to their members. For example, the level of service concept ensures that an industrial customer who receives service at transmission voltage is not allocated a portion of the distribution system.

Q. WHAT DEMAND ALLOCATORS WERE USED TO ASSIGN DEMAND COSTS TO THE CUSTOMER CLASSES?

A. Two specific demand allocators were developed to assign demand

costs to customer classes: the coincident peak demand (CP) allocator for production and transmission costs, and the non-coincident peak demand (NCP) for distribution costs.

Q. WHAT IS THE CP ALLOCATOR?

A.

The CP allocator is developed based on the contribution which each customer class contributed to the system territorial peak demand experienced during the test year. The Company's territorial peak demand always occurs between the hours of 2 p.m. and 6 p.m.; therefore, the Company has historically used the average peak in this four hour band. This four hour band is used, rather than the instantaneous peak, because individual classes have different load characteristics within this four hour band, and wide swings in allocated costs could occur each time rates are set if the single instantaneous peak were utilized. This four hour band CP allocator provides consistency in allocation of costs and the Company has used the four hour band with the Commission's approval in all electric rate proceedings for the last 25 years.

Q. WHEN DID THE PEAK DEMAND USED IN THIS STUDY OCCUR?

A. The peak demand used in this study occurred on July 9, 2003.

Q. HOW IS THE CP ALLOCATOR USED?

A. The CP allocator was utilized to allocate investments and demand related expenses associated with the production and transmission functions of the Company because system peak is the prime determinant of the amount of production and transmission facilities that the Company must install to meet customer demands.

Q. WHAT ALLOCATOR IS USED FOR DISTRIBUTION INVESTMENT AND EXPENSES?

A. The non-coincident peak allocator is the basis for allocating demand related distribution investments and expenses. The NCP allocator is developed by taking the non-simultaneous peak demands of the different classes whenever they occurred during the year.

Q. WHY DO YOU USE A NON-COINCIDENT PEAK FOR ALLOCATING DISTRIBUTION INVESTMENT?

A. Distribution facilities include the low voltage lines, transformers and related facilities that serve individual neighborhoods, rural areas and commercial districts. They do not function as a single integrated system in meeting system peak demand. Instead, the distribution system serving each neighborhood, rural area or commercial district must be able to meet the peak demand in that area whenever it occurs. Accordingly contribution to non-coincident peak is the

4	Q.	WHAT ALLOCATOR WAS USED TO ASSIGN ENERGY COSTS
3		part of the system.
2		because it best measures the factors that drive investment in that
1		appropriate measure of customers' responsibility for these costs

TO CUSTOMER CLASSES?

A. Energy costs reflect the variable cost of producing, transmitting and delivering electricity using the system already in place. Therefore, the Company's energy sales during the test year by class of customers were used to allocate these costs. An example of the cost

Q. PLEASE EXPLAIN THE DEVELOPMENT OF THE ENERGY ALLOCATORS.

allocated on this basis would include fuel.

A. The energy allocator is developed from the annual kilowatt hour sales by class of customer adjusted for system losses. We collect data on energy usage by customer class and we used actual test period data in making the allocation.

Q. PLEASE EXPLAIN THE DEVELOPMENT OF THE CUSTOMER ALLOCATORS.

A. Customer-related allocation factors were based initially on the raw number of customers in the respective classes during the test period.

To create more precise customer allocation factors, we utilized both weighted and non-weighted determinants. For example, we allocated billing expenses between customer classes based on the average number of customers in the class. This non-weighted allocation reflects the fact that the cost to produce, mail and otherwise process a bill does not vary significantly between customer classes.

On the other hand, the cost of reading meters and establishing billing determinants varies substantially between customer classes. Larger customers with more complex metering equipment and more complicated bills require more effort and cost for billing. Accordingly, we developed the factors used for allocating billing expenses between customer classes by weighting the average number of customers in the class a) by the average time required to read a typical meter for customers of that class, and b) by the average time required to develop billing determinants for customers in that class.

Q. HOW WERE THE RATE BASE AND RETURN COMPONENTS CLASSIFIED AND ALLOCATED TO CLASSES?

A. The rate base and return classifications and allocations were made

using standard methodologies as testified above. EXHIBIT NO.
(JRH-1) shows the classifications of investment and expense
items and the factors on which specific investment and expense
items were allocated. The next exhibit, EXHIBIT NO (JRH-2)
shows a detailed procedure of the development of the cost of service
and the resulting allocations that set forth the fully distributed cost of
service for the test year as adjusted.

Q. DOES YOUR COST OF SERVICE STUDY FOR THE TEST YEAR PROPERLY DISTRIBUTE COSTS OF PROVIDING ELECTRIC SERVICE TO CUSTOMER CLASSES?

A. Yes. The cost of service study presented here provides a proper foundation for distributing costs among classes since it recognizes cost causation and distributes costs accordingly. This study also provides a proper basis for determining cost-based rates and is a major component of fair and equitable rate design. The cost of service study also provides a reasonably accurate measure of profitability among classes of customers. It is fully consistent with past precedent and practice of the Commission in setting rates for the Company.

Q. PLEASE EXPLAIN HOW YOU DEVELOPED THE REQUESTED

REVENUE.

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The requested revenue is based on the rate of return information contained in EXHIBIT D-II, page 2 of 3 of the Company's Application. This information shows the rate of return that the Company earned during the test year was deficient and indicates a need for a net revenue increase of \$81,192,000 to allow the Company to earn a compensatory return on its electric service. As the Company's accounting witness, Mrs. Walker has testified the Company is proposing to include in rates, and eliminate from the fuel cost recovery calculation, \$10,922,000 (or \$910,167 per month) in annual pipeline fixed capacity charges related to natural gas service to the Jasper County Generating Station. To reflect this shift in expenses, rates have been created to reflect a total revenue increase from base electric rates of \$92,114,000. The matching reduction in fuel cost recovery will then create a net increase from the rate adjustments proposed on EXHIBIT D-II of \$81,192,000.

As a part of this adjustment, we proposed to reduce the monthly fuel factor by \$0.00057 per KWH simultaneously with the effective date of the rates.

Q. HOW WAS REVENUE INCREASE BY CLASS DEVELOPED?

Α.

In developing an appropriate distribution of the revenue increase to the various classes of customers, the cost of service is used.

From it, we ascertain our total revenue requirement and the percent by which our revenues must increase to meet this requirement. For ease of analysis, assume that the Company requires a 9% overall retail rate of return and this equates to an overall 10% revenue increase. If we then adjust the rates for each class of customer so that each class return equals 9%, we would realize our revenue requirement and each class would be paying its exact cost to serve.

While from a pure academic standpoint, this solution has appeal, the circumstances of our customers are much more dynamic and the relationship of customer costs cannot be so easily maintained. Looking at my EXHIBIT NO. ___ (JRH-3), you can see that based on the adjusted test year results, the residential class started out well below 100% of its cost to serve at 87% while all other classes started out above 100%. With the proposed revenue increases, all classes are moved toward 100%.

In proposing these revenue increases, we are adhering to

a long standing regulatory policy that states that rates should produce rates of return among classes that bear a reasonable relationship to the overall retail rate of return. The Company has historically considered (and the Commission has accepted) that a reasonable relationship exists to the overall retail rate of return so long as each customer class falls within plus or minus 10% of the theoretical 100%.

The Company continues to use the plus or minus 10% standard as a guide. If you look at EXHIBIT NO._____ (JRH-3) you will see that not only are we within plus or minus 10%, but in fact the returns of all customer classes are within plus or minus 5% of the mid-point. We believe that utilization of the plus or minus 10% bandwidth is reasonable and allows flexibility over the long run in case class returns move too far away from 100%. Also, this bandwidth allows the Commission flexibility to take into consideration public policy issues while making its decisions concerning how to allocate increases in revenue requirements.

RATE DESIGN

Q. WHAT IS THE COMPANY'S OBJECTIVE IN THE RATE DESIGN

EFFORT?

A. Our continuing objective in rate design is to provide electric service to our customers at fair prices while earning an adequate return for investors. The objectives of our rate design effort have been to price rates appropriately, to maintain a reasonable level of simplicity in rates and to continue to offer rate choices that meet customer needs.

We believe that rates should be designed to recover costs and provide clear market signals to promote the efficient use of electricity. Prices should encourage off-peak use, higher load factors and investments in energy efficient equipment. Rates should help customers improve their efficiency and their ability to compete in domestic and foreign markets. We want to encourage new customers to locate in South Carolina as well as keep existing customers in the State.

In addition, we believe that rates should be set so that rates and revenues will be stable and predictable over time, offering a sense of continuity. We want to offer helpful rate choices to our customers. But we also want rates to be as simple and understandable as possible so that customers can

understand their options and use them to their best advantage.

In this proceeding, we reviewed those objectives against our existing rates, and have determined that the existing rate structure does not require substantial modification at this time.

Q. ARE THERE ANY PROPOSED CHANGES THAT AFFECT ALL OF THE ELECTRIC RATES?

A. Yes. The Basic Facilities Charge (BFC) for all rates has been increased. Even after the proposed increase, the amount of the charge will still be significantly less than the actual and continuous expenditures necessary to provide customers with the ability to use electricity. The requested BFC and the actual costs from this cost of service comparison for all rates can be seen on EXHIBIT NO._____(JRH-4).

Q. WHAT OTHER ADJUSTMENTS TO RATES ARE YOU PROPOSING?

A. There are two changes, other than the increase we are proposing in our rates. First, we are proposing to modify language to Rate 6 which is our Residential Energy saver/conservation rate. We are modifying language in the "requirements" section of the tariff regarding air conditioning. We are replacing language that sets

the SEER rating for HVAC at 12 with language that will allow flexibility when new building code standards are issued so that the rating may automatically change with those new standards. As the proposed rate reads, the SEER rating would be 1.5 SEER higher than the Council of American Building Officials Model Energy Code, or any federal or state mandated energy codes, or 12 SEER, whichever is higher. At the present time, the rating will remain at 12 SEER. This change will ensure that homes that qualify for this rate will exceed minimum standards of energy efficiency as those standards evolve in the future.

The second change in rates involves our interruptible rider to Rates 23 and 24. We are proposing to cap the rider for all current customers at their existing contract levels and close this rider to any new accounts. We are then proposing a new interruptible rider to Rates 23 and 24 that will allow the Company to interrupt for economic reasons as well as capacity shortages and system emergencies. We are also proposing in this new rider to allow the customer to buy through any economic interruption at a quoted market price at that time. The proposed rider will be explicit that an interruption can be for economic

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TERMS AND CONDITIONS OF SERVICE

- Q. IS THE COMPANY PROPOSING ANY CHANGES TO ITS

 GENERAL TERMS & CONDITIONS FOR ELECTRIC SERVICE?
- A. Yes. The Company is also proposing several specific changes that merit discussion.
- Q. PLEASE DISCUSS THESE CHANGES.
- A. The first of these is found at Section III (K) on page 6 of 8. Here, the Company requests that the reconnection charges be increased from \$15 to \$25.

In addition, the Company is proposing to charge the reconnection fee for each trip that is made to a customer's location so long as any failure to reconnect is due to failure by the customer to take required action. Such failure on the customer's part could include failure to provide access to the meter location (by failure to contain a dangerous animal, for example), or failure to follow Company instructions to open breakers on the customer's side of the meter as required for reconnection to be made safely.

Q. WHAT IS THE ACTUAL COST TO THE COMPANY OF MAKING RECONNECTIONS?

Α.

A. EXHIBIT NO. ____ (JRH-5) shows the actual cost to the Company of performing reconnections to be \$39.21 per reconnection. This is an average cost of reconnection that occurs during normal working hours and reconnections that occur during overtime hours. We believe that the \$25 charge proposed here is well justified by the actual costs involved.

Q. WHY ARE YOU REQUESTING THIS CHANGE IN THE RECONNECTION CHARGE?

We want customers to remain connected to our system. We believe that our policies should and do encourage customers to take advantage of the many resources we provide to help them continue receiving service and stay connected. We have a number of programs, including those in the electric customers' Bill of Rights, and work with a number of agencies to assist those having difficulty paying their bills to keep customers connected if at all possible.

At the same time, we believe that where reconnection charges are required, they should reflect the true cost to the

system of reconnection. If the actual cost of this service is not recovered, then ultimately other customers will pay higher rates to make up the difference. The proposed change appropriately reflects the costs involved in this service.

Q. PLEASE DESCRIBE CHANGES THAT YOU ARE REQUESTING CONCERNING YOUR CREDIT TERMS.

- A. The Company asks to add a new section to its General Terms and Conditions, which would be Section IV(D)(5) "Billing and Payment Terms: Deposit." If approved, this addition would allow SCE&G to collect deposits from nonresidential customers, that are not sole proprietorships, whose electric bills total at least \$25,000 or more per billing period for at least three billing periods of the previous 12 billing periods. Under the proposal, the Company could collect a deposit if one of the following criteria is met.
 - a.) The customer's authorized spokesperson or officer has admitted to the Company and/ or public media (newspaper, magazine, television, or radio) that they may be unable to pay their existing debt.
 - b.) The public media has disclosed that the customer has an

unsatisfactory credit rating issued by a credit rating agency commonly recognized in the financial community. An unsatisfactory credit rating shall be defined as being two grades below investment grade. The agencies would include but not be limited to Standard and Poor's, Moody's, Fitch, or Dun & Bradstreet.

c.) It has been disclosed to the Company and/or the public media that the customer has defaulted on debt obligations to a local or public financial institution.

If a deposit were required under these proposed provisions, the customer would be notified 30 days in advance of the date the deposit was due and the Office of Regulatory Staff would also be notified at that time. In addition, we are proposing to add a definition of deposit to this section of the terms and conditions so as to clarify for the customer the different types of financial instruments we will accept as a deposit. It is at the customer's option which financial instrument they chose.

Q. WHY ARE YOU PROPOSING THIS NEW PROVISION?

A. The experience underlying this request relates to commercial or

industrial customers whose credit has deteriorated and corporate insolvency is threatened. Even if the credit risk from a particular customer is widely known, the Company today is unable to seek a deposit, guarantee or other security until accounts have become delinquent and the customer is subject to termination. The customer could be indebted to the Company for two months service before we would have the ability to secure the account or discontinue service based on the current rules.

For a large industrial customer, the result can be that an uncollectible account has built up hundreds of thousands of dollars before the Company can act. As the Commission is aware, uncollectible accounts are a cost to the Company for rate making purposes and may become the payment responsibility of the system as a whole.

Listed below are the amounts of uncollectible bills owed by seven commercial/industrial customers, which were written off during the past two years. These customers were not delinquent in their payments before these amounts were incurred. The Company knew through public sources that these customers were having serious financial difficulties. Under its present credit

provision, the Company could not require additional security from these customers to protect the system against uncollectible bills.

Eventually these customers did file bankruptcy and left the Company with the write-offs listed below:

Customer A \$556,510 Customer B \$365,000 \$308,197 Customer C Customer D \$281,652 Customer E \$100,000 Customer F \$51,404 Customer G \$30.956 Total \$1,693,719

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The present General Terms and Conditions and

Commission regulations they track reflect the dynamics of
residential service quite well. Where residential customers are
involved, credit issues are not known until bills fall in arrears. The
need to act quickly in a specific case is less, since the impact on
the system from a particular customer's default is relatively small.

Where larger commercial and industrial customers are involved, the circumstances are quite different. Often in such cases, credit problems are publicly known in advance, and the cost to the system of continuing service without obtaining security for future payment can be significant. We believe that the

Company should have reasonable tools to protect itself and all customers on its system from the credit and financial risks posed by these situations.

Approval of this addition may require waiver of

Commission Regulation 26 <u>S.C. Code Ann.</u> 103-331, as amended

(1976). If so, SCE&G respectfully requests the Commission

waive this regulation for approval of these additional terms to its

General Terms and Conditions.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

10 A. Yes.